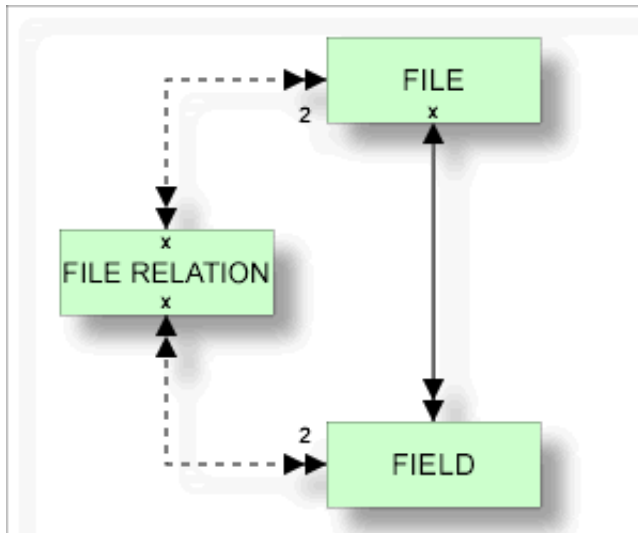


File Relation

The object type file relation documents relationships between files. The relationship is established by means of references to fields.



This section covers the following topics:

- File Relation Maintenance
- File Relation Retrieval

File Relation Maintenance

File Relation Maintenance Menu

The File Relation Maintenance menu is called with function code M and object code RL in a Predict main menu or the command MAINTAIN FILE RELATION.

```

13:05:08          ***** P R E D I C T 4.3.1 *****          2003-05-31
Plan    3          - (RL) File relation Maintenance -          Profile HNO

Function                                Function

A  Add a File relation                  D  Display File relation
C  Copy File relation                  L  Link children
M  Modify File relation                S  Select File relation from a list
N  Rename File relation
P  Purge File relation

Function .....

File relation ID .                      Attributes .....*
Copy ID .....
for file ID .....

Restrictions .....*   Profile HNO,used   Association .....*

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help Next Stop Last LnkEl Flip Print Impl AdmFi SelFi Prof Main

```

Note:

Parameters not listed here are described under Global Attributes.

Parameters	
Function	Executes one of the maintenance functions. All standard maintenance functions are described in the section Maintenance in the Predict Reference documentation .
for file ID	For the Select function: a file ID can be specified as an additional selection criterion. Asterisk notation is possible.

Add a File Relation Screen

The screen below is displayed for the Add a File Relation function. The Copy and Modify screens are similar.

13:30:23	***** P R E D I C T 4.3.1 *****	2003-05-31
- Add a File relation -		
File relation ... HNO-RL		
Type	*	
Keys ..		Zoom: N
Cardinality ..* :		
File 1		Minimum ...
File ID*	HNO-FI1	Average ...
Field ID ...*	HNO-EL1	Maximum ...
File 2		Minimum ...
File ID*	HNO-FI2	Average ...
Field ID ...*	HNO-EL1	Maximum ...
Constraint attributes		
Update type	*	(none)
Delete type	*	(none)
Constraint name ..		
Usage	*	(none)
Abstract		Zoom: N
Additional attributes ..* N		Associations ..* N

Note:

Parameters not listed here are described under Global Attributes.

Parameters	
File Relation	The ID of the file relation object.

Type	<p>The type of file relation. Valid values:</p> <p>C Two files of type A are physically coupled.</p> <p>D The file relation is only documented.</p> <p>K Common keys.</p> <p>This file relation type is only valid for file types YT and YV (Sybase tables and views). The field linked to the file relation must have a non-blank descriptor type. Predict checks whether the number, formats and character sets of the fields - or source fields in the case of superdescriptors - in file 1 and file 2 agree.</p> <p>For Sybase, you can generate a common key from a file relation of this type. For other database management systems, file relations of this type are used for documentation purposes only.</p> <p>N This file relation type documents the models used by Natural Construct. See Defining File Relations for Objects in Predict in the Natural Construct User's documentation.</p> <p>R Ref. Constraint. Files of type AT, BT, D, JT, OT, X, XT, XV, Y, and YV are connected by referential integrity.</p> <p>S Files of type A are soft coupled.</p> <p>See also table in the section Validity Checks for File Relations.</p>
Cardinality	<p>The number of records of each file that is permitted in any occurrence of the file relation. Valid values:</p> <p>1 one (must be one)</p> <p>C none or one (can be one)</p> <p>CM,CN one or one or more (can be many)</p> <p>M, N one or more (must be at least one)</p>
File 1	One of the related files.
File ID, field ID	If the type of file relation is R, the field which is used to link this table must be a primary index (for DB2) or a unique key (for other SQL systems).
File 2	<p>The other related file. If the type of file relation is R, the field which is used to link this table must be one of the following:</p> <ul style="list-style-type: none"> foreign key (descriptor E) foreign index (descriptor F) primary index (descriptor P)

Minimum	The minimum number of occurrences of a field from File 1 or File 2 in the file relation.
Average	The average number of occurrences of a field from File 1 or File 2 in the file relation.
Maximum	The maximum number of occurrences of a field from File 1 or File 2 in the file relation.
Constraint attributes	
Update type	<p>The type of constraint to be applied when updating a file relation of type D, N or R.</p> <p>C Cascade.</p> <p>R Restricted.</p> <p>L Suffix as line number (file relation type D or N).</p> <p>N Renumber suffix (file relation type D or N).</p> <p>S Set NULL.</p> <p>D Set default.</p> <p>A No Action.</p>
Delete type	<p>The type of constraint to be applied when deleting a file relation of type D, N or R.</p> <p>C Cascade.</p> <p>R Restricted.</p> <p>L Suffix as line number (file relation type D or N).</p> <p>N Renumber suffix (file relation type D or N).</p> <p>S Set NULL.</p> <p>D Set default.</p> <p>A No Action.</p>
Constraint name	The constraint name for a file relation of type D and R.

Usage	<p>Only applicable to file relations of type Natural Construct or Documented. Describes how the file relation is evaluated in Natural Construct:</p> <p>A Construct aggregate.</p> <p>I Construct inheritance.</p>
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Validity Checks for File Relations

The validity checks performed by Predict depend on the file relation type:

Code	Type	Applicable for	Validity Checks
C	Physically Coupled	Adabas	<p>May not be any of the following:</p> <ul style="list-style-type: none"> ● redefined field ● group ● periodic group ● member of a periodic group ● hyperdescriptor ● phonetic descriptor <p>The two fields in the file relation must be descriptors with the same length and format.</p>
D	Documented	all types	None
K	Common Keys	Sybase tables and views	The field linked to the file relation must have a non-blank descriptor type
N	Natural Construct	all types	Both the field and file containing the file relation must be defined in Predict.

R	Referential Constraint	Adabas Cluster Table, DB2 Table Oracle Table, Adabas D Table, Informix Table or View	<p>Must be marked in the table of file 1:</p> <p>For file type DB2 table or Informix table/view</p> <ul style="list-style-type: none"> • as primary index (descriptor type P), • foreign index (descr. type F) • or index (descr. type D), • and as unique (unique option U) <p>for file type Adabas cluster table</p> <ul style="list-style-type: none"> • as primary index (descriptor type P); <p>for other file types</p> <ul style="list-style-type: none"> • as unique (unique option U). <p>Must be marked in the table of file 2:</p> <p>For file type Adabas cluster table</p> <ul style="list-style-type: none"> • as foreign index (descr. type F) • or foreign key (descr. type E); <p>for other file types</p> <ul style="list-style-type: none"> • as primary index (descr. type P), • foreign index (descr. type F) • or foreign key (descr. type E).
S	Soft-coupled	Adabas	<p>May not be any of the following:</p> <ul style="list-style-type: none"> • redefined field • group • periodic group • member of a periodic group • hyperdescriptor • phonetic descriptor <p>The first field in the file relation must be a descriptor; the second field must have the same format.</p>

With Predict retrieval functions, file relations between physical files are treated as though they were connected with the userviews of the files.

File Relation Retrieval

File Relation Specific Retrieval Parameter

using file Restricts the scope of the function to file relations which apply to the specified file. Asterisk notation can be used to specify a range of files.

Layout of File Relation Lists

13:36:22	***** P R E D I C T 4.3.1 *****	2003-05-31
- List File relation -		

Cnt	File relation ID	Type File 1 File 2
1	AER-TST-SYS1-19	D AER-TST-SYS1 AER-TST-SYS2
2	AER-TST-SYS2-18	D AER-TST-SYS2 AER-TST-SYS1
3	AMMM	D
4	ARH-RL	D ARHTESTCHEN ARH-BT1
5	ARH-RL-FUER-BT-FILE	K ARH-BT1 ARH-BT1
6	ARH-RL-K	K ARH-D1 ARH-D1
7	ARH-RL1	D ARH-123456789012 ARH-123456789012
8	ARH-RL2	R ARH-OT1 ARH-OT1

Meaning of Columns	
File Relation ID	ID of the file relation object.
Type	The type of file relation. See table in the section Validity Checks for File Relations for list of valid types and codes.
File 1	One of the related files.
File 2	The other related file.

Output Options for File Relation Retrieval

The output options valid for this object type are identical to those for object type Dataspace. See Output Options for Dataspace Retrieval.